

accordance with the present invention, as viewed from different angles. In particular, unlike current wafer boats which provide support for each wafer at four points (two lower points to support the weight of the wafer, and two upper points to maintain the wafer in the vertical orientation as illustrated in FIG. 1), the wafer boat of the present invention is provided with two upper support guides 18a, 18b to maintain the wafer 12 in the vertical orientation, and a single lower supporting grooved portion 20 to support the weight of the wafer 12. Once the material of which wafer boat 10 is fabricated is selected, the supporting grooved portion 20 which is in a plane lower than the upper support guides 18a, 18b, is shaped having an arcuate configuration such that, when the wafer 12 and wafer boat 10 are subjected to wafer processing temperatures of about 1000 °C and above, the shape of the supporting grooved portion 20 will substantially correspond to the shape of the part of the wafer 12 contacting the supporting grooved portion 20, thereby supporting the wafer 12 across the entire arcuate portion of a circular wafer's periphery which is in contact with the supporting grooved portion. In other words, the lower arcuate periphery of the circular wafer rests upon and is supported by the supporting grooved portion 20 when the wafer 12 is positioned in a slot 14 in wafer boat 10 and maintained in a vertical position by the upper support guides 18a, 18b. The wafer boat 10 having this configuration provides exceptional support for and stabilization of the wafers 12 positioned in the slots 14. Additionally, the wafer boat 10 of the present invention includes one or more large openings or windows 22 between each end of the boat in order to increase the radiation view factors and decrease radiation blocking caused by the boat, as compared to boats currently known in the art.

Please replace the paragraph beginning at page 13, line 5, with the following rewritten paragraph:

In the case of a wafer boat for use with a 300 mm wafer, in one embodiment, the boat includes 10 slots intended to hold 10 wafers. Such a boat is approximately 11 cm long. The opposing upper supports are positioned approximately 6.8 cm above the lowest point of the groove, and spaced apart from one another by approximately 10.4 cm. Each slot will have a width of approximately 0.89 mm. The groove will have an arc length of approximately 20.82 mm. FIG. 4